



CANADIAN STANDARDS
ASSOCIATION

The Benefits for Emission Trading of Using Voluntary, Consensus-based Standards

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Overview

- Why might incorporating voluntary consensus-based standards into regulation be of interest?
- Who is ISO and how do they develop standards?
- What are National Standards Bodies and how do they develop standards?
- How can voluntary standards be incorporated into regulation?
- What might be the benefits of doing this for emissions trading and carbon markets?



Why might incorporating voluntary consensus-based standards into regulation be of interest?

In particular, for GHG emissions trading schemes.



For various reasons GHG accounting has become a burning issue...

- Carbon Disclosure Project
 - Institutional investors worth \$31 trillion request disclosure of climate risk, including GHG inventory;
 - Over 900 of world's largest companies responded to questionnaire in 2006;
 - Canada 280 CDP report produced for first time in 2006 – over 70% response rate for large cap companies.
- Global Reporting Initiative
 - Over 1900 SD reports on GRI registry – many reporting 'in accordance with GRI'.;
 - Requires a GHG inventory be produced;
 - In Canada: Suncor, Syncrude, Imperial Oil, Encana, PetroCanada, TransAlta, Alcan, etc.
- UN Global Framework for Climate Risk Disclosure – also requires GHG inventory.



...for both international and regional GHG initiatives

- Regional governments are developing GHG regulations and offset rules
- Canada – more than 400 facilities emitting more than 100 ktonnes each are reporting annually;
- US – Climate Leaders assists in preparing corporate GHG inventory, 1605(b) requests reporting of inventories or projects, California Climate Action Registry requires 3rd party verification, RGGI has offsets and inventories;
- EU – Emissions trading scheme requires reporting of verified emissions data annually from more than 12,000 facilities



A mix of voluntary and mandatory initiatives will always exist

- GHG emissions are emitted by almost every economic activity;
- Different policy instruments are more amenable to different types of economic activities;
- Voluntary policy instruments can exist within mandatory systems (e.g. offsets within trading systems);
- Influence of governments may not be large enough to encompass all GHG reduction areas;
- Social license to operate now becoming a major focus of major corporations;
- Small to medium-sized enterprises not easily captured by policy instruments, but as a sector are major emitter;
- Individual actions may be more permanently changed by voluntary commitments than by mandatory policy instruments (e.g. government priorities and policies change).



Who is ISO and how do they develop standards?



ISO's mission and process

- ISO is federation of National Standards Bodies established in 1949 with mission to “to facilitate the international coordination and unification of industrial standards”;
- Over 16,000 standards published. Published documents range from highly technical specifications for products to guidance documents on environmental communication;
- Excludes electrical or electrotechnical standards which are managed by IEC;
- Standards are voluntary and consensus-based. Meant to improve safety, product performance and facilitate trade.
- Process involves over 3000 committees and over 50,000 experts worldwide.

ISO's standards development principles

Modern technology and programme management

- Use modern technology and programme management to improve effectiveness of standards development processes

Consensus

- Consensus is essential procedural principle
 - “General agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments” (Consensus need not imply unanimity)

Discipline

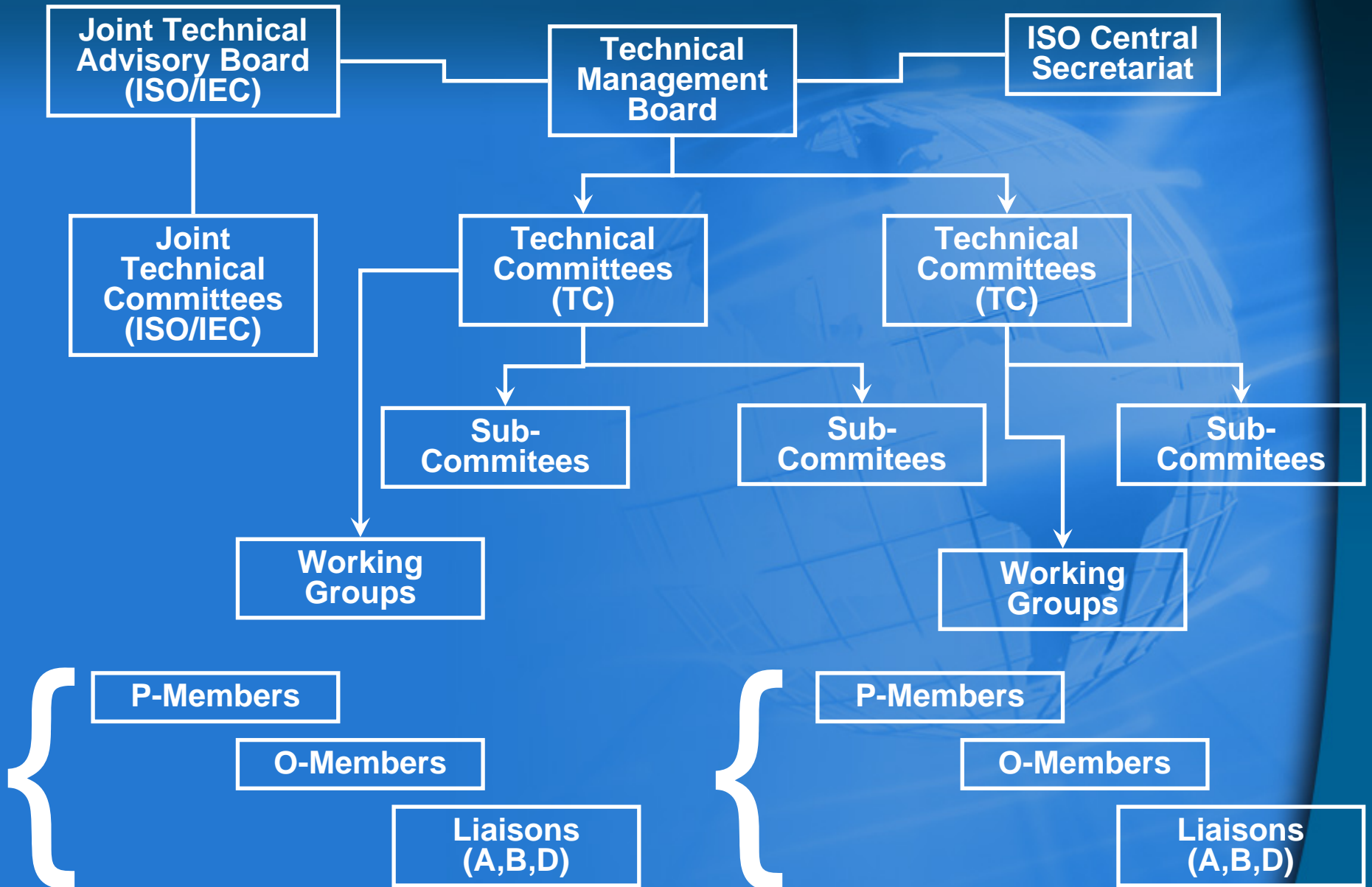
- In responding to requests, developing consensus national positions. Extensive comments should be provided in advance of negotiation sessions.

Cost-effectiveness

- Concept of ‘total cost’ includes National Bodies, ISO and experts. Includes both national and international costs.



ISO Standards Development Structure



Types of ISO Documents

Type	Description	Status	Approval	Revision	Max. Life
International Standard	Document, established by consensus and approved by ISO ..., that provides, for	Norm.	<ul style="list-style-type: none"> • 2/3 majority P voting • <1/4 votes negative 	5 years	No limit
Technical Specification	Document published by ISO for which there is the future possibility of agreement on an International Standard, but...	Norm.	<ul style="list-style-type: none"> • 2/3 majority P voting 	3 years	6 years
Publicly Available Specification	Document published by ISO to respond to an urgent market need, representing ... a consensus of the experts within a working group.	Norm.	<ul style="list-style-type: none"> • Simple majority P voting 	3 years	6 years
Technical Report	Document published by ISO containing collected data of a kind from that normally published...	Inform.	<ul style="list-style-type: none"> • Simple majority P voting 	No review	NA

ISO Development Process

Stage	Deliverable	ISO Target Dates – Availability	Ends With
Preliminary	Preliminary Work Item (PWI)	-	
Proposal	New Work Item Proposal (NP)	-	
Preparatory	Working Draft(s) (WD)	6 months	<ul style="list-style-type: none"> • Approval to register 1st CD. • Proposed draft Technical Specification. • Approved draft Publicly Available Specification. • Approved draft Technical Report.
Committee	Committee Draft(s) (CD)	12 months	<ul style="list-style-type: none"> • Proposed draft International Standard. • Approved draft Technical Specification.
Enquiry	Enquiry Draft(s) (ISO/DIS)	24 months	<ul style="list-style-type: none"> • Proposed final draft International Standard.
Approval	Final Draft International Standard (FDIS)	33 months	<ul style="list-style-type: none"> • Approved/rejected text of International Standard.
Publication	International Standard (ISO)	36 months	<ul style="list-style-type: none"> • Approved text of International Standard, Technical Specification, Publicly Available Specification or Technical Report.



Standards development processes and deliverables

TC/SC route

Deliverables

STAGE 1 NP
(new work item proposal)

STAGE 2 Building expert consensus

STAGE 3 Consensus building within TC/SC

STAGE 4 Enquiry on DIS
(draft International Standard)

STAGE 5 Formal vote on FDIS
(proof check by secretariat)

STAGE 6 Publication of International Standard

First CD (Committee draft)
or **ISO/PAS** (Publicly Available Specification)

DIS or **ISO/TS (Technical Specification)**
ISO/TR (Technical Report) for non-normative documents

Final text for processing as FDIS (final draft International Standard)

Final text of International Standard

ISO International Standard

International Workshop Agreement

NEW!

NEW!

NEW!

Workshop route

Structure and formatting of International Standards

Scope

Normative references

Terms and definitions

General principles

Objective

Performance approach

Structure

Subdivision of the subject matter

Description and numbering of divisions
and subdivisions

Drafting

Preliminary informative elements

General normative elements

Technical normative elements

Supplementary informative elements

Preparation and presentation of documents

Annex A (informative) Principles for drafting

Annex B (informative) Basic reference works

Annex C (informative) Example of numbering
of divisions and subdivisions

Annex D (normative) Drafting and
presentation of terms and definitions

General principles

Independent terminology standards

Annex E (normative) Drafting of the title of a
document

Elements of the title

Avoidance of unintentional limitation of
the scope

Wording

Annex F (normative) Patent rights

Annex G (normative) Designation of
internationally standardized items

General

Applicability

Designation system

Annex H (normative) Verbal forms for the
expression of provisions

Annex I (informative) Quantities and units



What are National Standards Bodies and how do they develop standards?



National Standards Bodies

- Provide example of Standards Council of Canada – processes / bodies are slightly different in each country;
- SCC established by act of parliament in 1970 to ‘foster and promote voluntary standardization in Canada’;
- Independent of government policies and operations, although partially government funded;
- SCC is member body of ISO and sponsors Canadian National Committee to IEC;
- SCC accredits Standards Development Organizations (SDO) to develop standards. Canada has 4 SDOs. Each has identified areas of responsibility established by SCC;
- Standard is: **Document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.**



Standards Development Committees

- Committees require ‘balanced representation’
 - A representation of interest groups in a standards-development committee such that no single category of interest can dominate the voting procedures.
- Interest groups generally categorized as:
 - General interest: has interest and expertise but is not producer, regulator, user, consumer;
 - Producer: involved in production, promotion, retailing, distribution;
 - Regulator: government body or authority regulating acceptability, manufacture, sale or use;
 - User: users not involved in production, promotion, etc.
 - Consumer: type of end user, purchasing or using goods, property or services, for private purposes.



Participation at International Level

- SCC accredits international delegates:
 - Must be member of relevant Canadian sub-committee;
 - Active for over 1 year;
 - Knowledgeable in the subject matter
 - Well versed in Canadian practices and requirements in field of endeavour;
 - Head of delegation must be Canadian citizen.
- Canadian delegates represent SCC and official Canadian position at international meetings;
- Canadian position is developed at periodic Briefing Meetings;
- Delegate shall not represent personal or employer views during negotiations or associated social events.
- Head of Delegation or WG report submitted two weeks after meeting

Procedures for creation / adoption of standards

- Request for development of National Standard of Canada (NSC), includes:
 - Likely beneficiary of the standard;
 - Source of financial support;
 - Known contacts for SDC membership.
- SDO identified to undertake development;
- NSC shall address national public interest by:
 - advancing the national economy,
 - supporting sustainable development,
 - benefiting the health, safety and welfare of workers and the public,
 - assisting and protecting consumers, and,
 - facilitating trade.
- NSCs can be developed within Canada or adopted from international process (this is encouraged for purposes of harmonization).



How can voluntary standards be incorporated into regulation?



Referencing Standards in Regulation

- Regulators are integral to standards setting process:
 - Governments set standards in law and regulation;
 - They adopt private sector standards (by reference);
 - They participate through SDO processes;
 - They influence standards through procurement.
- Referencing means **drafting part of a code or regulation so that detailed specification of technical requirements is replaced by a reference to one or more standards, or their relevant parts.**



Standards need to be designed in certain ways to be used in regulation...

- Divided into distinct, consistent and easily identifiable sections;
- No references to certification or administrative requirements relating to conformity assessment, marks of conformity and other non-technical issues (can be in preface, foreword, annexes);
- Should not specify any date for enforcement of a standard (administrative requirement);
- Language should be clear, direct, precise (should not 'recommend', or use 'unless otherwise specified')
- Wording should be logical, valid, specific (avoid language like 'adequate', 'adversely affected', 'sufficiently strong');
- Qualitative adjectives should be taken as absolute (e.g. 'waterproof', 'unbreakable', etc.)



...and can be referenced using their parts...

- Complete reference: all the contents of the standard are included by reference;
- Qualified reference: selected portions of the standard are deleted as being inappropriate for intended purpose;
- Partial reference: only selected portions of the standard are included in the regulation;
- Reference as good practice: standard is referenced as a guide to permit conformance to 'good engineering practice';
- Reference as an alternate: referenced as examples where certain performance requirements are met or where compliance will allow user to obviate certain provisions of a regulation;
- Inclusive reference to standards: referenced standard makes reference to other standards;



...or using their pedigree.

- Dated identification (specific version of a standard): includes date of issue or edition number;
- Date identification (specific version + future amendments): includes amendments but excludes future editions;
- Undated identification: includes all versions and future editions;
- Maintenance schedule for the standard needs to be considered:
 - How frequent is it?
 - Who is responsible for updating?
 - How do I stay involved / informed?



What might be the benefits of doing this for emissions trading and carbon markets?



Using standards in regulation has many benefits

- **Fulfills the need:** because of consensus process, likely to meet expectations of majority of stakeholders;
- **Verification:** if built with verification in mind, enhances confidence in product or system and provides positive support for regulation;
- **Access to expertise:** may represent sum of knowledge of broader pool of expertise than is available to regulator;
- **Uniformity of requirements:** with participation of several jurisdictions, results in more uniform requirements, favoring exchange of goods and services;
- **Market compliance:** if marketplace and regulatory bodies participate, likelihood of market compliance increases;
- **Efficiency:** if same tool is used to meet market and regulatory needs, more effective and efficient;
- **Resource savings:** if referenced standard contributes to objective of regulation, only require investment of participation from regulator.



An example for emissions trading could be...

- In March 2006, ISO announced the approval of ISO 14064 standards by all countries participating in their development.
- Approvals include:
 - The US and Australia
 - China, India, Brazil, South Korea, Indonesia, South Africa
 - Russia, Venezuela, Libya, Norway
 - EU members (including UK, Germany, France, Italy)
 - Canada and Japan
- Several National Standards Bodies are adopting this international standard, most without modification;



...ISO 14064, which has four distinct parts.

Scope	Standard
Organizations	Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (ISO 14064-1).
Projects	Greenhouse gases - Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions and removal enhancements (ISO 14064-2).
Validation and Verification	Greenhouse gases - Part 3: Specification with guidance for the <i>validation and verification</i> of greenhouse gas assertions (ISO 14064-3).
Accreditation	Greenhouse gases - Specification for greenhouse gas validation and verification bodies for use in <i>accreditation</i> and other forms of recognition (ISO 14065).

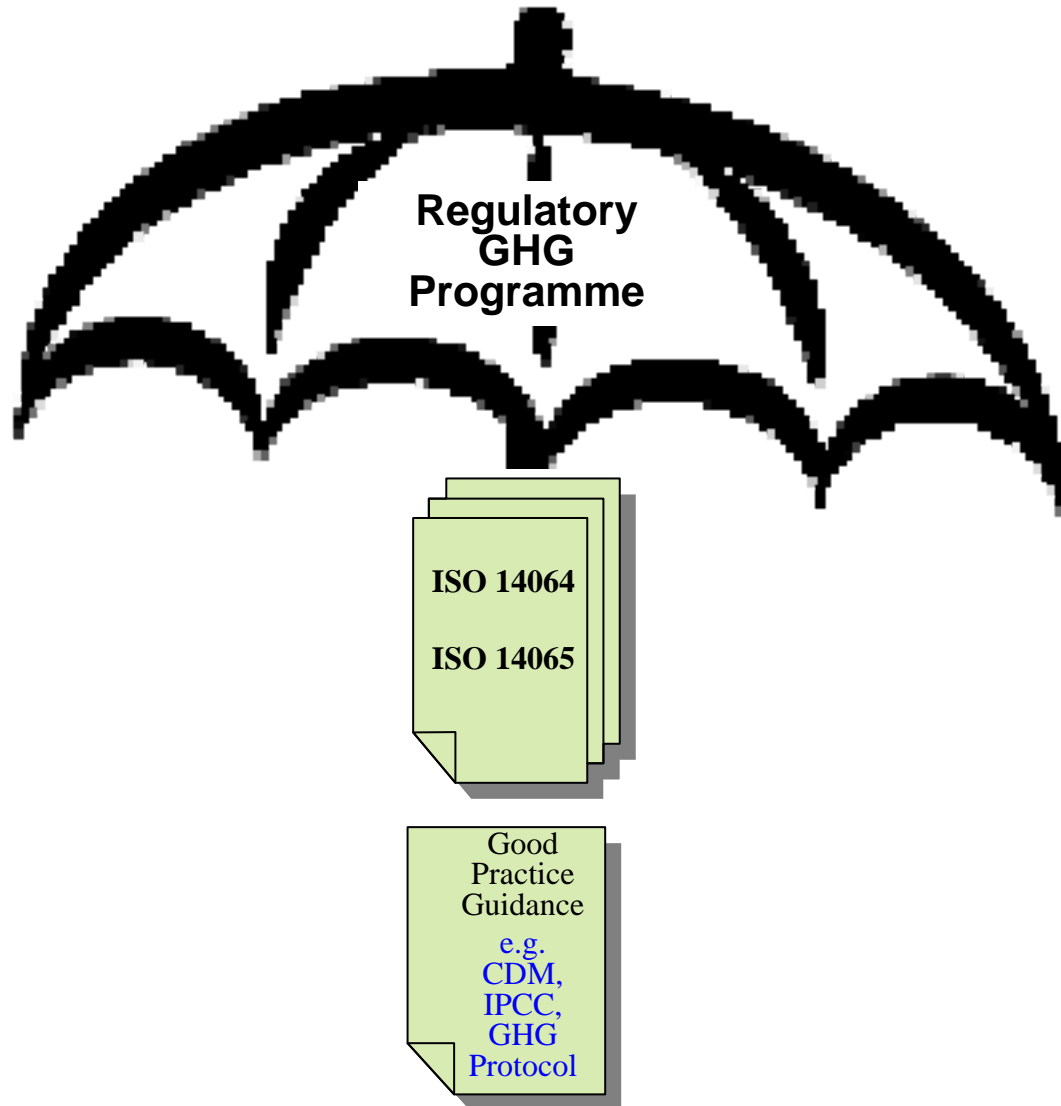


Key Features

- Voluntary and regime/program neutral
 - focused on the technical aspects of GHG accounting.
- Different from management systems standards (such as ISO 9000 and ISO 14000):
 - Do not require registration/annual third party audits/conformity assessments.
- But compatible with ISO management system standards
 - For example: verification standard considers the types of controls that are in place for data management
- Written in a language compatible with requirements from the financial and accounting sectors.
- Compatible and complimentary with other widely used GHG accounting standards (GHG Protocol, CDM)



Programme requirements and 'best practice' can be added on...





...so that specific benefits can be derived.

- Access the 3+ years of development effort;
- Access pool of expertise involved:
 - UNFCCC observed and GHG Protocol participated;
 - Many government experts participated (Canada, Austria, U.S., etc.);
 - Industry, ENGOs and consumer groups
- Specific objective to ‘facilitate the crediting and trade of GHG emission reductions or removal enhancements.’
- Increased credibility because verification according to financial accounting principles, accreditation according to IAF principles;
- Familiarity with industry because structure consistent with other standards – consistent understanding and interpretation;
- Flexibility, can create a link between voluntary and mandatory markets



In Summary

- The importance of GHG quantification, reporting and verification has grown in recent years;
- This is because of emissions trading, where both mandatory and voluntary markets exist;
- ISO and National Standards Bodies have a rigorous process for development of voluntary, consensus-based technical standards;
- These standards can be incorporated into regulation in a number of ways;
- Both mandatory and voluntary emissions trading markets could benefit by referencing existing and emerging voluntary, consensus-based standards.